ARCHITECTURE & LONELINESS
DESIGNING AGAINST LONELINESS AMONG THE ELDERLY

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Why loneliness?
Why focussed on elderly?
RELEVANCE 4 REASONS

- POLITICAL

- ECONOMICAL

- DEMOGRAPHICAL

- SOCIOLOGICAL
- POLITICAL
Elderly people in the Netherlands need to keep living at home as long as possible
> Housing needs to be adjusted to this

- ECONOMICAL

- DEMOGRAPHICAL

- SOCIOLOGICAL

“Municipalities must ensure that people will be living at home as long as possible.” (Rijksoverheid, 2015)
RELEVANCE 4 REASONS

- POLITICAL

- ECONOMICAL
  Less money available for the Dutch elderly health- and homecare
  > Elderly still need to be able to receive enough care

- DEMOGRAPHICAL

- SOCIOLOGICAL

"...the increasing grey ing and the economical crisis with the financial cuts related to that, strengthen the need of a change in the way living, well-being and care are organised."

(Doekhie et al., 2014, p. 14)
RELEVANCE 4 REASONS

- POLITICAL

- ECONOMICAL

- DEMOGRAPHICAL
  Ageing population: both amount and percentage
  > A bigger amount of elderly-suited housing is needed

- SOCIOLOGICAL

“...the number of people aged over 65 years will increase from 2.2 million in 2000 via 3 million around 2020 to about 4 million in 2040. The percentage of people aged over 65 years will therewith increase from almost 14 to 23 percent.”

(Alders & Tas, 2001, p. 7)
RELEVANCE 4 REASONS

- POLITICAL

- ECONOMICAL

- DEMOGRAPHICAL

- SOCIOLOGICAL

The elderly are a vulnerable group when it comes to loneliness.

- Elderly people should be able to feel part of the society.

“Of the elderly people in the Netherlands, 68% is not, 28% moderate and 4% strongly lonely.”

(Van Tilburg & De Jong-Gierveld, 1999, p. 158)

“...at advanced ages, the prevalence of loneliness increases. Of those aged 80 and over, 40–50% say they are ‘often’ lonely” (Dykstra, 2009, pp. 92-93)

“The reported level of social loneliness differed by age, with the oldest[80+years old] having significantly lower scores than the younger[65–80 years old].”

(Heylen, 2010, p. 1184)
What is loneliness actually?
LONELINESS FACTS

- PHENOMENON

- EMOTIONAL VERSUS SOCIAL

- QUALITY VERSUS QUANTITY
LONELINESS FACTS

- PHENOMENON
  A subjective, negative feeling
  > Every person experiences loneliness in a different way, to a different extend

- EMOTIONAL VERSUS SOCIAL

- QUALITY VERSUS QUANTITY

"Anyone, regardless of his or her personality, is liable to suffer loneliness in situations that are appropriately defective" (Weiss, 1973, pp. 71-72)

"[Loneliness is] the unpleasant experience that occurs when a person's network of social relations is deficient in some important way, either quantitatively or qualitatively". (Perlman & Peplau, 1981, pp. 31-32)

"[Loneliness is] the social equivalent of physical pain, hunger, and thirst" (Hawkley & Cacioppo, 2010, p. 218)

"[Loneliness is] an indicator of social well-being". (de Jong-Gierveld, 2006, p. 582)
**LONELINESS FACTS**

- **PHENOMENON**

- **EMOTIONAL VERSUS SOCIAL**
  Loneliness can be divided into social and emotional loneliness
  > Emotional refers to an individual (e.g. partner)
  > Social refers to a group (e.g. colleagues)

- **QUALITY VERSUS QUANTITY**

  "Emotional loneliness is missing an intimate attachment, [...]. Social loneliness is lacking a wider circle of friends and acquaintances that can provide a sense of belonging, of companionship and of being a member of a community." (Weiss, 1973)
LONELINESS FACTS

- PHENOMENON

- EMOTIONAL VERSUS SOCIAL

- QUALITY VERSUS QUANTITY

Loneliness can occur due to a lack of quality or quantity within one’s social relationships

> The amount of social contacts says nothing about the real quality of these friendships and can therefore still result in loneliness

> Loneliness is not the same as being alone

“Loneliness is synonymous with perceived social isolation, not with objective social isolation. People can live relatively solitary lives and not feel lonely, and conversely, they can live an ostensibly rich social life and feel lonely nevertheless." (Hawkley & Cacioppo, 2010, p. 218)
How could collective living decrease the amount of loneliness among the elderly in the Netherlands?
Elderly are generally only willing to share the more public facilities within their living environment. A high privacy level is very much appreciated.

but...

Social interaction with neighbours is an important part in preventing elderly from becoming lonely.
What to do now?
Respect the high privacy level of elderly people and create possibilities for establishing social interaction in the more public areas of the living environment.
How?
ARCHITECTURAL ELEMENTS SUPPORTING SOCIAL INTERACTIONS

- Activating elements
- Seeing and hearing
- Greenery
- Constellation of dwellings
- Ground floors
- Paths
- Materialisation
- Number of floors
- Number of dwellings
- Informal encounters
- Zoning
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Where to design?
LOCATION JEKERKWARTIER, MAASTRICHT

- CENTRAL AREA

- EDGE OLD CITY CENTRE

- NEXT TO CITY PARK
LOCATION **JEKERKWARTIER, MAASTRICHT**

- **CENTRAL AREA**

- **EDGE OLD CITY CENTRE**

- **NEXT TO CITY PARK**
LOCATION Jekerkwartier, Maastricht

- Central Area
- Edge Old City Centre
- Next to City Park
LOCATION JEKERKWARTIER, MAASTRICHT

- BUILDING BLOCK

- MONUMENTAL BUILDINGS

- LOT OF OPPORTUNITIES
LOCATION JEKERKWARTIER, MAASTRICHT

- BUILDING BLOCK

- MONUMENTAL BUILDINGS

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LOCATION JEKERKWARTIER, MAASTRICHT

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How to **transform** this location?
URBAN CONFIGURATION
URBAN CONFIGURATION - STEP 03 - A NEW START
URBAN CONFIGURATION - STEP 04 - DIVIDING IN TWO
URBAN CONFIGURATION - STEP 05 - SUBDIVIDING
URBAN CONFIGURATION - STEP 06 - ADDING PUBLIC FACILITIES
URBAN CONFIGURATION - STEP 07 - ROUTING VIA GALLERY
URBAN CONFIGURATION - STEP 09 - ADD DORMERS
What will this urban plan look like?
URBAN PLAN - OVERVIEW
URBAN PLAN - PUBLIC MAIN BUILDING
URBAN PLAN - PUBLIC MAIN BUILDING
URBAN PLAN - PUBLIC MAIN BUILDING
URBAN PLAN - PUBLIC MAIN BUILDING

+01 - ARTS & CRAFTS

music room

craft room
URBAN PLAN - PUBLIC MAIN BUILDING

+03 - HEALTH & CARE

facilities / storage

+03

+02

+01

00
URBAN PLAN - PUBLIC SUB BUILDING
URBAN PLAN - PUBLIC SUB BUILDING
URBAN PLAN - PUBLIC SUB BUILDING
URBAN PLAN - COURTYARDS
URBAN PLAN - COURTYARDS
URBAN PLAN - COURTYARDS

(existing) child daycare

playground
URBAN PLAN - COURTYARDS
URBAN PLAN - COURTYARDS
URBAN PLAN - DWELLING BUILDINGS
URBAN PLAN - DWELLING BUILDINGS
URBAN PLAN - DWELLING BUILDINGS
How to dwell within this urban plan?
Suitable for every age, every type of household, with the opportunity to adjust to the dwellers needs over time.
DWELLING UNITS - CELLAR
DWELLING UNITS - FLOOR
DWELLING UNITS - FLEXIBLE TUBE SYSTEM
DWELLING UNITS - FLEXIBLE TUBE SYSTEM
DWELLING UNITS - FLEXIBLE TUBE SYSTEM
DWELLING UNITS - 0.5 GRID
DWELLING UNITS - 1.0 GRID
DWELLING UNITS - 1.5 GRID
DWELLING UNITS - PREFAB FACADE PANELS
DWELLING UNITS - PREFAB CONCRETE
DWELLING UNITS - WOODEN STRUCTURE
DWELLING UNITS - WOODEN STRUCTURE
DWELLING UNITS - FLOOR HEATING
DWELLING UNITS - WATER SYSTEM
DWELLING UNITS - WATER SYSTEM
DWELLING UNITS - WATER SYSTEM
DWELLING UNITS - WATER SYSTEM
DWELLING UNITS - WATER SYSTEM
DWELLING UNITS - VENTILATION SYSTEM
DWELLING UNITS - VENTILATION SYSTEM
DWELLING UNITS - VENTILATION SYSTEM
How to *inhabit* this structure?
DWELLING UNITS - TRANSFORMING PLANS - OVERVIEW +01
DWELLING UNITS - TRANSFORMING PLANS - 0.5 x GRID SIZE
DWELLING UNITS - TRANSFORMING PLANS - 1.0 x GRID SIZE
DWELLING UNITS - TRANSFORMING PLANS - 1.0 x GRID SIZE
DWELLING UNITS - TRANSFORMING PLANS - 1.5 x GRID SIZE
DWELLING UNITS - TRANSFORMING PLANS - 1.5 x GRID SIZE
DWELLING UNITS - TRANSFORMING FACADE
DWELLING UNITS - TRANSFORMING FACADE
DWELLING UNITS - TRANSFORMING FACADE
How does the architecture being created, help in reducing loneliness?
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- Zoning
ARCHITECTURAL ELEMENTS GALLERY
ARCHITECTURAL ELEMENTS COURTYARD
What has been **achieved** within this design?
CONCLUSION - ROOM FOR...

...all ages.
CONCLUSION - ROOM FOR...

...all household types.
CONCLUSION - ROOM FOR...

...choosing privacy or the public.
CONCLUSION - ROOM FOR...

...active and passive involvement.
CONCLUSION - ROOM FOR...

...both local residents and visitors.
The creation of a living environment which suits to the needs and wishes of elderly, providing opportunities for establishing social interactions, which support decreasing the chance of experiencing loneliness.